CAROLINA WATCHMAN.

BY HAMILTON C. JONES. SALISBURY, N. C. SATURDAY, AUGUST 6, 1836. VOL. V—NO. 3.—WHOLE NO. 211.

TERMS.

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Knoxville Convention.

EXTRACTS FROM THE REPORT OF CAPT. W. G. WILLIAMS, CHIEF ENGINEER, ON THE SURVEY OF THE CHARLESTON AND CINCINNATI RAIL-ROAD.

KNOXVILLE, July 5th, 1836.

GEN. R. Y. HAYNE,

Chairman of the Board of Commissioners, &c.

SIR: In accordance with instructions received by me in March last, from the War Department, in regard to a survey to connect Charleston and Cincinnati by a rail road, the officers attached to my command, consisting of Lieuts. White, Drayton, and Reed of the U. S. Army, and Mr. Featherstonhaugh, U. S. Civil Engineers, were immediately ordered to Columbia, in South Carolina, whilst I repaired to Philadelphia and New York, to procure instruments, and superintend the repairs of others, for the contemplated survey. Delays, incidental to this business, prevented the commencement of operations as early as had been expected, and it was not until the latter part of April that we were enabled to begin the work.

My attention was particularly directed to the examination of the passes of the North and South Carolina, with discretionary power entrusted to me, to modify my operations so as to procure such information and data, as might best seem to throw light on the subject, previously to the meeting of the Convention, of the 4th of July, at Knoxville. Under these circumstances, I thought it advisable, with the concurrence of the Commissioners, so to arrange our plans as to present to the view, under *rigorous data*, only such points of the project, as involved the idea of serious difficulty to the construction of the contemplated rail road: which by far the greatest portion, being of a common place character, and such as would be pronounced by general consent practicable, upon the basis of analogy with existing works, might be approximately estimated upon the results of a mere reconnoisance.

The section which has engaged more particularly our attention, has been that in which are comprized, *the Eastern ascent of the Blue Ridge, the French Broad,—and the Cumberland Mountains:* for we may assume without danger of compromittal, that the country intermediate between the foot of the Cumberland Mountains to Cincinnati on one side, and the foot of the Blue Ridge and the Atlantic on the other, present no obstacles to the accomplishment of our object; but are such as have been often encountered and subdued.

In order to bring a general view of the subject before the convention, it will be necessary to *assume some route as a basis* conforming approximatively to the project to be ultimately adopted: Upon this an estimate may be formed, founded upon the assimilation of its general portions to works that have been already constructed in the U. S. whose characteristic features are similar by reference to the ground over which they pass.

This mode of estimate in regard to the less difficult parts of the work, will be, we are confident, more satisfactory to the convention than an attempt at calculation in detail, founded upon the existing inadequate data. By being divested of a great mass of technicalities, it will be the more accessible to a practical and common sense investigation, particularly as under present circumstances, but little time can be supposed to be at the disposal of the parties interested;—and in fact, this circumstance in regard to ourselves, precludes the possibility of a more minute character of investigation. So far however, as the difficult points of the work may be concerned, data derived from rigorous surveys will be presented; so that in all that relates to *the practicability of the work*, every doubt in the mind on the subject may be satisfactorily removed.

This being premised let the line be supposed to begin at Charleston, following the present Charleston and Augusta Rail Road to Branchville; thence to Columbia, passing on a line almost central in regard to the State of South Carolina; thence on the best ground in the valley of Broad river, to point above the mouth of Thicketty Creek,—from which the road might be conducted by the ridge dividing the waters of Thicketty and the broad river, to a point a few miles above the mouth of Green River, and over the dividing ground between the Green and Broad Rivers with the valley of Broad River, thence ascending by the course of this stream generally to the mouth of the Reedy Patch Creek. Following up this creek with the aid of inclined planes, we reach the elevation of the Blue Ridge, and the summit level of the projected route.

This ridge may be regarded as the crest of the great mountain mass that divides the Eastern and Western waters of the United States: It is remarkable in this; that its developement is unbroken by rivers; whilst the great Cumberland Ridge, and the intermediate ridges are severed to their very bases by the rapid current of the Tennessee, and her numerous tributary waters. The head springs of the French Broad take their rise in the Blue Ridge, and by a gradual descent flow in the Holston, the Tennessee; and finally through the great channel of the Mississippi, pour their tribute to the Gulf of Mexico. Thus from the highest point of our levels in the Reedy Patch Gap, we have *a continuous valley to the Mississippi river;* but owing to its great divergency from the required course, we can only avail ourselves in respect to the project, of but a portion of its developement. It enables us however to pass by a gradual slope through the great bed of inferior mountains, contained between the Blue and Cumberland ridges, for a distance of about one hundred miles; upon this distance the line would pass through the county of Buncombe, North Carolina, and divide the valley of East Tennessee.

In our hypothesis however, we assume the route to diverge from the valley of French Broad, at a short distance below the mouth of the Nolachucky, and passing over several inferior ridges, by a route indicated in the report of a reconnoisance by Col. Gadsden, finally to reach the Cumberland Gap of the Cumberland Mountains. This gap is but little elevated, and the Ridge not more than 5000 feet through.

It offers one of the most important obstacles to the work. We now descend by yellow Creek to Cumberland River, and follow its valley as long as may be consistent with our present direction: From the point of divergency from this valley to Lexington one fixed point on our line, we may assume the location of the road as not differing from a general straight direction, and the same may be said in regard to the final distance between Lexington and Cincinnati.

This may be assumed as the general approximate line of road, from Charleston to Cincinnati;—but other locations that I have examined, would enter into competition previously to a final location. The details in regard to surveys already made by us, will shew that advantages may be obtained in the execution of the work by certain modifications referred to, *Gap Creek* in the Saluda Mountains, the *Green River*, and *Broad River*, possesses advantages, that must eventually be discussed, as modifications of the above general route projected.

Passing to the Cumberland Mountains, *Wheeler's Gap*, must enter as a point to be carefully surveyed, for the reasons, that it brings Knoxville an important point naturally into the line; and because the Gap itself possesses advantages superior even to to those of the Cumberland Gap. The course of examination which has led me to the above conclusion, (in regard to the best approximate route for the road) has been confined to such limits in the range of mountains of North and South Carolina, as would cause the road to pass in its whole developement through those States only, which had granted charters by their Legislatures to authorize its passage through them I have thus examined the Blue Ridge from the head of the Broad River on the N. E. to the head waters of the Estatoe River on the South West. In this examination were comprized consecutively, Laquey's Gap on its Eastern descent.—Hickory Nut Gap—Reedy Patch Creek Gap—Mill's Gap,—Sandy Ford Gap—Butt Mountain—Saluda Gap—Old Saluda Gap—Hightowers Gap—Gap Creek, Blyth's Doathwait's, McKinney's and the Estatoe Gaps. Of these as especially worthy of future consideration & minute survey, I shall cite, Broad River, Reedy Patch, Butt Mountain, Green River, and Gap Creek, of which experimental surveys have been already executed.

A cursory survey was also executed of the French Broad River, commencing at that point of its course, where facilities for the construction of a Road became less obvious,—was carried throughout that portion of its passage through the mountains, which might by inspection have given rise to doubts of the practicability of a road conducted by its valley. With regard to the Cumberland mountains, the only passage which time enabled me to cause to be *surveyed*, was Cumberland Gap, but this was sufficient to complete the examination of the list of obstacles that had been suggested to the construction of this great work. The remainder of the ground being universally conceded as practicable.

My results happily shew that *these obstacles may be surmounted*, and at an expense that should not be regarded in the execution of such an enterprize.

No other survey was made across this ridge; but my examination as I have already stated, impressed me very favorably in regard to a passage more southwardly than this point, through Wheeler's Gap, and which ought to be surveyed previously to the final location of the work.

The general character of the country over which this trace of the route would pass is so well known, to those interested in the project, that a description of it is unnecessary, particularly as I wish to avoid every topic that in the emergency of the occasion may be dispensed with. The leading features of topography moreover will be necessarily deferred to the moment when it shall be a question of the estimated cost of the work, in its various sections.

I now propose demonstrating the practicability of a route, by reference to the point of greatest difficulty of the whole enterprize—the passage of the Blue Ridge. In endeavoring to show the practicability of our project, I have deemed it essential to receive *as data*, only such results in regard to the power of locomotive engines, and other auxiliary means, as have been *fully tested by experience and practice.*

I will now undertake to give an approximate estimate of the cost of construction of this magnificent project; but it will be readily understood by all who are conversant with such matters, that in doing so, time has not been allowed me to base my views on rigorous calculations; at the same time adopting the principle already noticed, it will be appreciated as a practical method, and one that will be open to the understanding of the plainest reasoner, by the simplest inquiry as to the character of the country in any particular section, any gross error would be readily perceived. It is probable that deficiencies and compensations will eventually balance each other, and I hope that no remarkable discrepency from the truth will ultimately be discovered in my statement.

In order to enter advisedly upon this mode of estimate, I have gone into a careful examination and analysis of the cost of various rail roads thoroughout the United States, from which averages will be very accurately drawn. I shall now more particularly refer to the Philadelphia and Columbia Rail Road, and the Alleghany and Portage Rail Road, inasmuch as there is a perfect general resemblance between them and the project which is in question.

This coincidence will appear striking from the following passage from the editor of Woods' work on rail roads, published in Philadelphia: see page 444.

"The Rail Road portions of this extensive line, (the rail roads above mentioned,) the longest in the world, have been confined to the most difficult parts of the route. The nature of these difficulties will be apparent from an examination of the description of the Rail Road which is given in the appendix. The undulating surface of the route which moreover passes over three mountains, required enormous embankments and excavations, whilst a tunnel through solid rock increased the unusual cost:—the numerous streams, the impetuous torrents and several broad rivers, rendered the cost for bridges and other works enormous; nevertheless the cost of the whole work, with the exception of the machinery and the superstructure or railway, will be only $12,000 per mile for 81 96-100 miles, and $18,860 per mile for the remaining 36 69-100 miles. The greater portion of this work is already finished, and the present year will see the completion of the whole Road formation, and of a large portion of the rail-way."

"The cost of the latter will in future depend on the decision of the legislature respecting the materials and dimensions to be adopted But even if the most durable, efficient and expensive mode be adopted—a mode far more costly and substantial than that of the hitherto unrivalled Manchester and Liverpool Rail-way—if the superstructure be continued in the same manner as the portion now in progres, the cost will be $16,000 per mile, or, the total cost of the whole rail road will be less than $30,000 per mile."

It will occur to every mind that these obstacles are the very difficulties against which we have to contend. The very same mountain ridges in another point of their developement with elevations even more imposing, the rise and fall amounting to 2570,29 feet, in the passage of the principal mountain with 10 inclined planes. This road is now prepared for the reception of a double track, and is 25 feet in width. It is now in operation. Its cost will be referred to in the proper place.

In our estimate we adopt the supposition of a double track Rail Road of usual dimensions, and conformable in its details to the portion of the line already executed between Charleston and Branchville.

ESTIMATE.

A single track rail road being already executed between Charleston and Branchville, the expense of rendering the portion conformable to our project would be the cost of an additional track parallel with the other. It is a liberal allowance to state the cost at the actual cost of the present road; say $4500 per mile—that is for 62 miles, $279,000.

The section from Branchville to Columbia passes over the dividing ground between the Edisto and Congaree Rivers, and is in its general surface somewhat elevated, and intersected by small streams or branches, but may be considered as very favorable ground in respect to our project. A mean between the cost of the Baltimore and Susquehanah Road, and the Augusta Road assumed for a double track, may be regarded as a fair average—$11,900 per mile.

If we admit the Roanoke and Portsmouth Road, as an element, estimated for double tracks $11,066, the average of the three would amount to $11,485 per mile. From Branchville to Columbia therefore, 62 miles, at $11,485—$711,946.

From Columbia to the mouth of Thicketty we will regard as the second section. In this distance the line passes over favorable ground keeping the valley of the Broad River and from the best information no difficulty exists. Taking therefore the cost of a moderately level road at $10,000 per mile, and that of a hilly one at $15,000 per mile, and regarding one fifth of the latter to be a fair allowance for such inequalities, we deduce an average cost for this section of $12,000 per mile. We have therefore from Columbia to the mouth of Thicketty 65 miles at $12,000, $780,000.

From this point the line may be continued up the valley of the Broad river and pass over the Reedy Patch. In taking the Baltimore and Susquehanah road as a criterion, I believe I shall not greatly err in estimating its probable cost. It will probably be rather less than more. Adding $8,500, for an additional track, we assume its cost at $14,300 per mile—52 miles at $14,300 per mile will be, $743,600

We now arrive at the most difficult portion of the enterprize, namely: the ascent of the Blue Ridge. This may be effected in two ways; by the Reedy Patch Gap, alluded to justly in a very favorable manner in the report of Col. Brisbane, upon a reconnoissance lately made by him, or by the valley of the Green River or perhaps by Gap Creek. Regarding as a division of our survey the distance between the point where our line intersects Green River, and its intersection with the French Broad below Asheville, our map between these points exhibits a developement of 40 miles; a portion of this, say about 10 miles comprizes the greatest difficulties of our work, whilst the distance from Butt Mountain Gap is perhaps the least to be apprehended. It is fair to assume its cost at a slight modification of the average of the Alleghany and Portage Rail Road, say $40,000 per mile for the first 10 miles, $12,000 for the remaining 30. On the map the line confines itself to the valley of Mud Creek; it would probably be modified to be much straighter in the distance from the Butt Mountain to Asheville.

The cost would therefore be for 40 miles $760,000. We will now refer to our survey of the French Broad with a reconnoissance to the limit of our observations in the direction of Cincinnati. From our Bench mark, 5½ miles below Ashville on the French Broad, the river begins to descend with an increased velocity, and the advantages, previously enjoyed for our enterprise in its comparatively level valley, begin to disappear. From this point it passes through a mural escarpment for about 40 miles, broken but in a few places by the debouche of creeks into its rapid current, the principal of these are the Ivy, Laurel and Paint Creeks.

A Turnpike road has been established along its margin, but is not sufficiently elevated above high water line to become a commodious thoroughfare. The rise of the water, in its highest freshets, varies from 5 to 15 feet in different localities. It appears in regard to this river, that the fall per mile between our point of commencement, 5½ miles below Ashville, and a point near the mouth of the Nolachucky, does not exceed on an average, 13 feet, and that the greatest fall in any mile, (and that only in one instance) is only 45 feet, an acclivity within the useful and ordinary range of locomotive power. The curvatures it will be seen by our horizontal projection on a large scale, offer not the slightest difficulty, as in the few cases where the natural bend of the river may present an inconvenient turn, it may be obviated either by tunnel or by crossing the stream on a viaduct; and from my own careful personal observation (having examined it three times from beginning to end) and from the survey of Lieut. Drayton whose notes are before me, I advance the assertions that no difficulties, greater than those encountered upon the Alleghany and Portage Rail Road, need be anticipated. The fact however must be disguised that they do to a certain limit exist; the road will necessarily be raised very considerably above the present turnpike, it will often have to be built for a short distance in the River; but the river is generally very shallow, and coffer dams would very rarely be required for the constructions anticipated. Tunnels through the Rock will perhaps be required to give straightness to the line. There may in a few instances be viaducts of considerable length, but we think it possible that by conducting the road on the south west side of the river, the necessity of crossing may not often occur or perhaps be entirely obviated. In estimating the price of construction of this portion of our work, namely from the point named to the mouth of Nolachucky, I shall bear in view the average prices on which we base our estimate, and in this case the Pennsylvania Road being our criterion, we shall limit its cost by the average cost of that work. It will therefore be, say 60 miles at $30,000=$1,800,000.

This indeed is founded upon a rough calculation, and partly upon the aggregate cost of other works of similar difficulty.

The principle estimated cost in the road formation on the French Broad, arises from the supposition of the Tunnelling and viaducts that may be necessary—although it is hoped that in making a survey of Location, many of these assumed expensive constructions may be avoided, by availing ourselves of the facilities afforded by the opposite shores of the river, which we could not possibly survey with accuracy in the required time. From the mouth of Nolachucky the route passing by Knoxville to Wheeler's Gap, and thence to the mouth of Elk Fork of Clear Fork of Cumberland river, will be regarded as a section of our estimate.

In the supposition of this route the line would be generally confined to the valley of the French Broad as far as its junction with the Holston at Knoxville, disregarding the various points of divergency that might occur to straighten the line, all of which would tend to reduce the amount of our estimate. This object might have been obtained by diverging from our assumed route at New-Port and cutting off the bend of the river between that point and Dandridge, but as these modifications will not essentially effect my estimate, it is sufficient that I am enabled by personal examination to announce that the route is susceptible of such modifications to advantage, and that no obstacle or even difficulty exists in this vicinity of the enterprise of a character to inspire the slightest apprehension. In the distance intervening between Knoxville and the depression of the Cumberland Mountain, known as "Wheeler's Gap" the route would cross several parallel Ridges, but principally the Copper Ridge, which is perhaps the only difficulty between Knoxville and Cove Creek, where the ascent of the main Cumberland Mountain through its valley commences.

I examined the Copper Ridge in two points, one in the direction of the Island Ford, the other at Lucas' Gap.

To cross the first point would require stationary power, but from the cursory view I took of the last named point, I think the ridge might be traversed without the aid of such an auxiliary. I am morever informed that in this vicinity lower depressions exist. My reconnoissance in this quarter only a few days before the meeting of the Convention, was necessarily made with great rapidity, to enable me to return to Knoxville in time to prepare my report, and to superintend the preparation of maps, profiles, &c. to be before the Commissioners in anticipation of the meeting.

The Beaver and Chesnut Ridges, also intermediate between Knoxville and the Clinch River, are of minor importance. By this route we cross the Clinch at Eagle Bend, keeping the river for a short distance, it then passes for a short distance up Cane Creek, crosses into Cole Creek over a very inconsiderable ridge, and again leaving that valley, passes by another important elevation into Cove Creek.

The ascent by Cove Creek to the summit depression of the Cumberland Mountain to Wheeler's Gap, is very gradual, and the general course straight. These elements constitute it a very desirable point of passage to the road, and I think it may be passed by a single inclined plane. At any rate it opposes no obstacle to our plan. From this summit the descent is more rapid on the north west side, but it continues so only for the distance of half a mile: we are then upon the waters of the Elk, which may be followed down very gradually to its junction with the Clear Fork of Cumberland River. I did not extend my reconnoissance further for reasons already explained—but assured myself by creditable testimony that no difficulty whatever existed between this point and the junction of the Creek with the Clear Fork of Cumberland River.

The distance from the mouth of Nolachucky is 90 miles, and passes over a varied character of ground. In estimating its cost at $30,000 per mile, I feel confident that I am making *a very liberal allowance*, and believe that it will cover every contingency.

We have therefore for 90 miles at $30,000 per mile, $2,700,000.

The country between the junction of Elk with the Clear Fork of Cumberland near the Kentucky line, the City of Frankfort in Kentucky, and thence to Cincinnati, I have not yet had the opportunity to examine, but from the enquiries I have made as to its character, I should think that the estimate may be assimilated to the cost of the Roanoke & Elizabethtown road, in conjunction with the estimated cost of the New York and Erie Rail Road. This average would amount to $12,162 per mile, for the distance from the point of termination of our last estimated section to Cincinnati. The New York and Erie Rail Road passes over a mountainous country, and the estimates were founded upon the acurate estimates of one of the most experienced practical Engineers in the United States. We have therefore 190 miles at $12,162 per mile=$2,310,780.

The summary of the already given estimate is as follows:

From Charleston to Branchville,	$279,000 00
" Branchville to Columbia,	711,946 00
" Columbia to mouth of Thicketty,	780,000 00
" Mouth of Thicketty to intersection with Green River	743,600 00
" Intersection of Green River to Ashville,	760,000 00
" Ashville to Mouth of Nolachucky,	1,800,000 00
" Mouth of Nolachucky to junction of Elk with Clear Fork of Cumberland,	2,700,000 00
Thence to Cincinnati,	2,310,780 00
	$10,085,320 00

It is to be remarked, however, that the Rail Road between Charleston and Branchville, and between Branchville and Columbia, South Carolina, will be executed by the South Carolina Rail Road Company, and we may therefore reject from our estimate the cost we have assigned to it.

But another consideration entered into our report, and that is the execution of the Rail Road from the point, where under the charter it should be found expedient to diverge from the line already reported upon.—This point being vague by reference to our want of knowledge of the ground, we suppose that the cost of the distance above referred to might be regarded as an offset to it, the distance and character of the country over which they pass being sufficiently similar for this hypothesis.

To the estimate then for a line of Rail Road for double tracks from Charleston to Cincinnati, 621 miles, by our estimate we assume the above amount, $10,085,320 00.

But a branch from Maysville, Kentucky, by the terms of the charter, must intersect the line in some expedient point of the route between Lexington and Cincinnati. Estimating the distance in the absence of data in regard to its absolute route, independent of the main line at 60 miles, and assigning to it the same ratio of cost as that assumed on the section of line through Kentucky, we have its cost,— $729,720

This being added to the above amount, we get for the cost of double track Rail Road from Charleston in South Carolina, to Cincinnati on the Ohio, with a branch to Louisville and a branch to Maysville, in Kentucky, $10,815,040

I will now proceed to make a few remarks generally, in regard to the survey, as they may occur—time not allowing me to methodise their arrangement. To those whose timidity may be alarmed at the idea of undertaking the stupendous enterprize which is now in question, although they may concede the importance of it to our country, it will perhaps inspire confidence to see a statement of what *has been achieved* in this department of science, for objects by no means of commensurate importance; for I believe in the world a work does not exist, nor has even been projected, that combines so many elements from which to draw an augury of beneficial results.—We find that a Rail Road has been executed in France, of a more imposing character in point of difficulty and expense. On the road from St. Etienne to Lyons, 14 tunnels have been constructed in a distance of 34 miles: one of these tunnels is a mile in length, another 2990 feet, and on the continuation of this line from St. Etienne to Andrezieux the curves do not exceed sometimes a radius of 230 to 240 feet: whilst on the Green River there is not a less curvature than 600 feet to be encountered.

The difficult peculiarities of the Liverpool and Manchester Tunnel, are well known to all who are tolerably conversant with the history of civil improvements.

On the Portage and Alleghany Rail Road, there is a tunnel of 90 feet through solid rock, with 10 inclined planes, whilst in the passage of our greatest difficulty, at the Blue Ridge we only contemplate two, or at furthest three, inclined planes. These facts compared with the details of this report, drawings, &c. will dispel any anxiety that may be entertained in regard to the ultimate practicability of our enterprize.

In regard to the manner in which I have formed my estimates, under existing circumstances, exception cannot be taken. To have gone into the usual scientific calculations to arrive at a result, would at least have cost us a month.

In the selection of a mode of estimate not founded on minute scientific calculations, I thought one in which no collusion could possibly exist, but simply based upon general analogical reasoning, would be most likely to inspire confidence, as it leaves the subject open to a matter of fact investigation. I had intended to report somewhat more in detail upon the cost of local modifications of our route, but time presses so urgently upon me that it must be assumed for the present, that the cost by Reedy Patch or Gap Creek, instead of Green River, would not materially differ, and that we may estimate the route by Cumberland Gap upon the same general basis that we have assumed for that by Wheeler's Gap. The Profile of Cumberland Gap with the horizontal projection shews that under the worst that can happen a tunnel of 5000 feet will alone be requisite to obviate the difficulty in the most efficient manner. But by modifying the slopes, to use inclined planes would be probably a more economical method.

Lieut. White's report appended will elucidate the details of this passage of the Cumberland Mountains. The general route I have described upon the accompanying map in the distance between the mouth of Nolachucky and Knoxville, does not coincide with the line I have examined; passing by Mansfield's Gap of Bay's Mountain, which probably would be found the most economical route to join these two points. It will of course be surveyed previously to a determinate location.

I have now generally recapitulated the results of our survey which has called for the greatest exertion of the officers who have been charged with the levels and surveys. I take this opportunity of expressing my entire satisfaction with the great industry, intelligence, and perseverance, they have displayed during the whole course of our operations.

Lieut. E. B. White and Lieut. T. F. Drayton conducted the levels, whilst Lieut. J. G. Reed and Featherstonhaugh, U. S. Civil Engineers, were charged with the compass lines.

The Maps, profiles &c., illustrative of the survey, and accompanying my report, are as follows:

Map of Green River, from Bridge near Murray's to Mill's Gap road.
Profiles No. 1, 2, 3, of Green River.
Map of Reedy Patch Gap, and Profiles.
Map and Profile of Cumberland Gap.
Maps No. 1, 2, 3, of French Broad.
Map shewing proposed general route of Rail-Road from Charleston to Cincinnati.

I will not attempt to speak of the advantages to be derived to the country, or to the stockholders, by the consummation of the present enterprize: it would be a vain assumption under existing circumstances, when the elements will be developed and set forth in the language of eloquence, inspired by the profoundest sagacity of our country. Nay, it is with a sense of my weakness, that I prepare, on this occasion, even those remarks that pertain to my immediate profession, and I crave the indulgence that is in a great measure due to the hurried manner in which I have been compelled to procure my data, and put in a form to be submitted.

I am most respectfully,
Sir, your ob't servant,
W. G. WILLIAMS,
Capt. U. S. Top. Eng'rs.
Ch'f. Eng'r for Surveys L. C. & C. R. R:

From the U. S. Telegraph.

The appropriations for 1836, including the unexpended balances of last year, amount to THIRTY-EIGHT MILLIONS SEVEN HUNDRED AND THIRTY-THREE-THOUSAND ONE HUNDRED AND FORTY-FOUR DOLLARS!!! A pretty round sum for an Administration pledged to economy, retrenchment, and reform! Here are the items:

Civil and Diplomatic list	$3,730,190
Miscellaneous subjects	4,352,438
Revolutionary and other pensions	455,454
Expenses of Indian Department	1,873,282
Pay of the Army	4.010,485
Pay of Naval Service	6,275,412
For erecting and repairing Fortifications,	2,865,590
Support of Military Academy	131,663
Pay of Volunteers and Dragoons	300,000
Delaware Breakwater and improvement of Harbors	1,107,630
Indian treaties and annuities	6,388,000
Protection of Western frontier	100,000
Suppression of Indian hostilities	5,020,000
Unexpended of former appropriations	2,223,000
	$38,733,144

DEATH OF MARSHALL NEY.

Ney was informed of his sentence late at night and was hurried to execution early the next morning. The sentence was carried into effect on the 7th of December, 1815, in a clandestine manner, near the observatory, for all who were in any way connected with this detestable transaction, appear to have been ashamed of it:

When Ney reached the place of execution, he walked firmly from the coach to the fatal spot; and refusing to have his eyes blinded, calmly faced the detachment: taking off his hat with his left hand he exclaimed:

'I solemnly protest before God and man against the iniquity of my sentence—History will judge me.'

Then placing his hand upon his heart, he added, 'Soldiers straight to the heart, *Vive le France—fire!*' He fell dead upon the spot, twelve balls having taken effect. Thus perished one of the greatest men France could boast, exhibiting to the last moment that undaunted courage which had ever distinguished him in battle.